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ABSTRACT

A study was conducted to determine the following: Do the needs of beginning and experienced technical college teachers differ? Do the professional development activities of the two groups differ? and Do the factors important to beginning teachers who leave vocational education differ from those of experienced teachers who leave? The data used in the study were previously collected through questionnaires in two studies in 1987 and 1989. The population consisted of 250 beginning teachers (5 years experience) and 292 experienced teachers (8-12 years) in central Minnesota technical colleges. Interpretation of the data suffered from some constraints (for example, the beginning teachers did not have degrees in education, whereas some of the experienced group had such degrees when they started). The groups who stayed and those who left were different on a number of demographic variables when they entered teaching. The study found that the beginning and experienced teachers who stayed differed on 8 of 11 job needs, suggesting that teachers' needs change over their careers. In the area of professional development, the study found that more of the newer teachers were taking methodology courses and college courses, whereas more experienced teachers were taking graduate courses and workshops. The groups who left expressed a variety of reasons for leaving, with experienced teachers leaving because of dissatisfaction and beginning teachers leaving for career advancement. Results of the study could be used to improve teacher placement and retention. (61 references) (KC)

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A Comparison of Factors Related to The Attrition and Professional Development of Beginning and Experienced Technical College Teachers

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Introduction

Technical college teachers are a valuable resource. Their retention and continued growth and development are concerns for the profession. In order to maximize their effectiveness and to avoid their leaving technical teaching, factors leading to their attrition and professional satisfaction must be better understood. Differences in the professional development activities of these teachers must also be understood in order to better meet their needs. This study is the third in a series of studies focused on understanding factors associated with attrition and satisfaction of two year postsecondary technical college teachers, and possible implications for planning professional development activities.

The first study investigated job needs and professional development activities of beginning teachers (Pucel, Jensrud & Persico, 1987). It concentrated on differences between the needs and professional development patterns of beginning adult extension vocational-technical educators and full-time vocational-technical educators who did not have degrees in education. The study was conducted at a time when the Department of Vocational and Technical Education at the University of Minnesota was considering the need for separate courses to meet the professional development needs of different groups of beginning teachers in the Minnesota Technical Colleges. The study found that the postsecondary and adult groups differed significantly on a number of job needs which attracted them to vocational education. The differences were in the extent to which the groups were attracted by fringe benefits, sharing what they know, wanting a job change, career advancement, work schedule, job security, and the need to control what they do. The study also found that both groups participated in substantial amounts of professional development activities which included both pedagogical and technical updating credit courses. Significant differences were found in the actual numbers of professional development courses taken by the two groups in areas of instructional methodology and vocational education. The postsecondary instructors tended to take more courses than the adult instructors. Most of the differences in job needs and amount of professional development appeared to be based on whether a person considered teaching as his/her primary career. For the full-time postsecondary teachers, teaching was their primary job and they perceived the job needs listed above as more important as compared to adult teachers who had full-time employment elsewhere and considered teaching as a secondary occupation. The exception was that the adult educators tended to be relatively more concerned about sharing what they know. The three factors most important to the beginning teachers leaving vocational education were found to be career advancement,

position was eliminated, and work schedules. The three least important factors were family reasons, did not like vocational, and students.

The second study investigated changes in job needs of experienced teachers between the time they entered teaching and 13 to 17 years latter, and differences between the job needs of teachers who stayed in teaching after a minimum of 8 years of experience vs those who left teaching (Pucel & Kaynes, 1989). That study found that some of the needs of teachers who stayed in teaching changed significantly between the time they entered teaching and after they had extensive experience. Salary, fringe benefits, work schedule, job security, control of work, and co-workers became significantly more important while sharing knowledge became significantly less important. The results suggested a major shift from the intrinsic aspects of teaching found with the beginning teachers to the extrinsic aspects of employment. The study also found significant differences between technical college teachers who stayed in teaching versus those who left. The group that stayed in vocational education rated both the work environment and the opportunity to work with students as significantly more important factors to their entering teaching. That study suggested that the needs of teachers change over time and that these differences might affect their professional development needs. The study also implied that the work environment of teachers became more important later in their careers. This implies that a key factor in continued job satisfaction might be the quality of their work lives. Changes in work schedule, control of work, etc. might bring about improved teacher moral and professional satisfaction. The three factors most important to experienced teachers leaving vocational education were found to be wanted a job change, stress, and co-workers. The three least important factors were fringe benefits, family reasons, did not like vocational education.

The separate results of the first two studies suggested that their were differences in the needs and professional development activities of beginning and experienced teachers. These differences were observed to be consistent with career development theory which suggests that as people progress through various stages of their careers, their professional needs change. Therefore, it was hypothesized that those factors important to beginning teachers may be significantly different than those of teachers who have had many years of experience. In turn, the differences in professional needs might affect the types of professional development activities in which they engage. The present study was designed to investigate those possible differences more thoroughly.

This study was designed to:

1. Determine if the needs of beginning teachers who remain in teaching after five years and those who remain in teaching for an extended period of time (13 to 17 years) differ.

2. Determine if the professional development activities of beginning teachers who remain in teaching after five years and those who remain in teaching for an extended period of time (13 to 17 years) differ.

3. Determine if the factors important to beginning teachers leaving vocational education and those important to experienced teachers leaving vocational education differ.

Conceptual Rationale

Each of the three studies was conducted in the context of the same two theoretical models related to career development. The first is the Theory of Work Adjustment developed by Dawis, Lofquist and Weiss (1968) at the University of Minnesota. That theory suggests that people stay in jobs if those jobs are consistent with their abilities and needs. If a person's job is inconsistent with her/his abilities or needs, the person has a high probability of leaving due to personal dissatisfaction or due to inadequate performance. Job tenure, therefore, is viewed as the result of a correspondence between the individual's abilities and needs on the one hand, and the ability requirements of the job and the extent to which the job can satisfy the individual's needs on the other. The Theory of Work Adjustment proposes that needs are dynamic and that they change over time as one progresses through his/her career. "The continuous and dynamic process by which the individual seeks to achieve and maintain correspondence with his/her work environment is called work adjustment" (Dawis, Lofquist, and Weiss (1968), p. 5).

The second contextual model is that proposed by McKenna (1982). That model suggests that peoples' career development progresses through five stages and that their perspectives and dispositions concerning their jobs change as they progress through those stages. These changes in turn impact their views of their jobs and professional development needs. McKenna suggests that stage one occurs during the first three years of professional teaching. This stage is characterized by enthusiasm, idealism, and efforts to fit into existing patterns of operation. Stage two is primarily characterized by a sense of stress as teachers seek to acquire continuing employment status, recognition from peers, and a chance for further advancement. During stage three, the teachers face mid-career issues. In stage three, teachers may begin to feel dead-ended if they perceive themselves as having plateaued or as having become stagnant in terms of salary or career advancement. On the other

hand, teachers in stage three who have continued to progress in terms of professional development may feel a greater sense of security and job satisfaction than teachers in stage two.

Stage four may be called the pre-retirement stage. Individuals may have reached the top of their profession or rank. Depending upon how far they are toward retirement, they may feel either a lack of professional challenge and job satisfaction, or a sense of relaxation and career satisfaction. McKenna suggests that generally, when teachers are more than five years from retirement, there is a tendency to feel more dissatisfied if they are in stage four. Stage five is the retirement stage. It can be characterized by either a sense of dissatisfaction or a sense of contentment, depending upon how well one has planned for retirement.

The two models suggest that factors affecting job satisfaction impact a person's reflections on teaching as a profession and on continuing in that profession. They also suggest that factors affecting satisfaction change as teachers mature in the profession. If the factors affecting individual satisfaction are perceived to remain compatible with the teaching profession, a person would be expected to remain in the profession. If those factors are not perceived to remain compatible, a person would be expected to leave.

McKenna's model suggests that the beginning teachers in this study who had five years of teaching, theoretically, would have progressed through approximately stage three of McKenna's model when the data were gathered. The experienced teachers with a minimum of between 8 and 12 years of experience included in this study, theoretically, would have been in stages three through five. Based on the results of the first two studies and career development theory, it was hypothesized that there could be significant differences between the needs of those teachers who were continuing in the early stages of their careers vs those who were in advanced stages of their careers. It was further hypothesized that there would be a significant difference between those factors which differentiate the beginning teachers who left vs experienced teachers who left teaching.

Assuming that people engage in optional professional development activities which are consistent with their needs, it was hypothesized that the professional development activities in which beginning teachers engage may be different than those in which the experienced teachers engage. If differences in professional development exist, study results could provide insight into the design of professional development activities and satisfactory work environments.

The study addressed the following specific questions.

I. Were the beginning teachers who stayed, the beginning teachers who left, the experienced teachers who stayed, and the experienced teachers who left similar when they entered teaching in terms of:
   A. Demographic variables
      1. Age at entry
      2. Gender
      3. Education prior to entry
      4. Vocational education field membership
   B. Needs upon entry to vocational education

II. Are there significant differences in current job needs between the beginning teachers who stayed in teaching and the experienced teachers who stayed in teaching

III. Are there significant differences between the beginning and experienced teachers who stayed in teaching in:
   A. Perceived value of a college degree
   B. Types of professional development activities in which they engaged
      1. Participation in credit courses
      2. Courses applied to degrees
      3. Degrees sought and completed
      4. Non-college credit workshops

IV. Are there significant differences in the needs reported by beginning and experienced teachers related to leaving vocational education?

Methodology

This study was designed to compare beginning (non-education degreed) teachers with experienced teachers based on factors related to job satisfaction and professional development activities. The data were previously collected in two studies mentioned above (Pucel, Jensrud & Persico, 1987; Pucel & Kaynes, 1989). It was not possible to conduct a longitudinal study which would have allowed the same group to be followed up for 17 years. Therefore, a cross-sectional study which required a sample of beginning teachers and experienced teachers was conducted. This allowed for a comparison of the beginning teachers with a group of experienced teachers who remained in teaching for between 8 and 17 years. The comparison of a person's needs upon entry to vocational education with current needs also required people to reflect back upon the past to indicate what they were thinking. The extent to which reflections on the past may not be accurate could affect the results of this study. The study was further complicated by the fact that all of the beginning teachers did not have degrees in education when they started teaching while some of the experienced teachers did have degrees in education. The exact number who had degrees upon entering vocational education could not be determined since data could only be gathered from teachers who stayed in teaching at least 8 years.

Although these limitations were recognized, the data bases offered a rare opportunity to conduct such a study and the costs of gathering data which would remove these limitations would have been prohibitive.

Data Gathering Instruments

Questionnaires for both of the previous studies were designed to gather comparable data. In addition, some items were included in each questionnaire which gathered data unique to each particular group. Items were designed to assess: a) perceived job needs, b) career development history in vocational education (entry into, job changes within, and possible exit from vocational education), c) professional development (formal and informal experiences designed to develop or upgrade competence in relation to job roles within vocational education), and d) demographic characteristics of the samples. Data on 73 variables were gathered from both groups. Most of the questionnaire items were forced-choice in the form of checklists and rating scales. Open-ended items were used only in those cases where the responses were numeric (e.g., number of years of teaching experience) or where it was not possible to isolate the possible range of responses.

Information on job needs was obtained through 11 items designed to assess the importance of various job needs adapted from the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England & Lofquist, 1967). The items were Likert-type items with a scale of 1 to 5, with 1 being low (not very important) and 5 being high (very important). The MSQ was designed to measure vocational needs. Vocational needs are defined as "...the individual's preferences for different types of reinforcers in the environment, i.e., preference for those stimulus conditions in the environment which he/she perceives as important to maintenance of her/his behavior in the work environment" (Weiss, Dawis, England & Lofquist, 1967, p.11). Items pertaining to 6 of the original 20 MSQ needs categories (advancement, compensation, co-workers, independence, social service, and working conditions) were included in the instrument based on the advice of the project's advisory committee. In addition, items related to stress and "sharing what I know" were developed based on the review of the literature. Teacher stress and dissatisfaction with teaching have been associated with teacher turnover (Cichon & Koff, 1980; Louis Harris and Associates, 1985). The ability to share what a person knows has been found to be an important factor in people becoming vocational teachers. (Pucel, Jensrud & Persico, 1987). The additional items were developed in the same format as those contained in the MSQ.

Each questionnaire was validated by an advisory committee. The advisory committees were composed of vocational teacher

educators, technical college staff development coordinators, the State Board for Vocational Technical Education (SBVTE) staff development specialist, and current and former technical college instructors. In addition, each instrument was pilot tested using groups of graduate students in vocational education at the University of Minnesota who had previously been technical college instructors.

Population

The population consisted of Minnesota Technical College teachers who taught in the colleges located in the central region of the State as identified through SBVTE licensure records. Addresses were obtained for 394 experienced teachers and 329 non-education degreed beginning teachers. Usable data were eventually gathered from 292 of the experienced teachers and 250 of the beginning teachers for return rates of 74% and 76% respectively. Of the 250 people who prepared to become teachers only 199 actually entered teaching.

Eighty-five percent of the experienced teachers (249) were found to be currently employed in vocational education while 15% (43) indicated they had left vocational education. An examination of the reasons why the experienced teachers left indicated that 12 left due to retirement. Since the study was to focus on the relationship between job needs and employment status, the retirees were eliminated from further study. It was likely that many of them left for reasons other than the correspondence between their job needs and their employment. Fifty-one percent of the beginning teachers (102) indicated they were currently employed in vocational education while 49% (97) indicated they had left vocational education.

The beginning teacher group did not have a four year college degree in education (non-education degreed), and had completed the first course required for teacher licensure offered by the University of Minnesota between September 1980 and December 1981. Approximately five years later this group was followed up during 1985-86.

The experienced teacher group was employed in Minnesota postsecondary technical colleges for between 8 and 12 years as of 1981-82. They were followed up during 1986-87 and asked to describe their activities during the last five years. Individuals who stayed in teaching would have had between 13 and 17 years of experience when followed up. People who left teaching during the five years would have had at least eight years of experience. Therefore, both groups provided data regarding what they did during essentially the same years (1985 - 1987).

Table 1 presents the primary comparison groups for this study. Actual numbers reported for selected data analyses vary slightly because respondents at times did not complete all items.

Table 1

Primary Comparison Groups

	Stayed	Left
Experienced	n=249	n=31
Beginning	n=102	n=97

Data Gathering and Reliability

Data from both groups were gathered using the same procedures. Each person was sent a first-class pre-letter which explained the study, and indicated that they would be receiving a questionnaire. In addition to verifying the addresses of subjects, the letter invited people to call if they had any questions or reservations about participating in the study. The actual instrument and a letter explaining the study was then sent through first-class mail. After 3 weeks, a second questionnaire was sent to people who had not responded. The second mailing included a packet of instant coffee as an incentive and the suggestion that they "have a cup of coffee on us" while completing the questionnaire. Those who still did not respond were contacted by phone. No attempt was made to determine whether there was a difference between respondents and non-respondents due to the exhaustive measures that were used to obtain data from all subjects. Therefore the results of this study are limited by the extent that the respondents and non-respondents may be different.

The reliability of the instruments used in each of the previous studies was determined by selecting a random sample of respondents and sending a second identical questionnaire to each of them. Of the 20 beginning teachers selected for the second mailing, 15 (75%) returned the second questionnaire. Reliability coefficients were calculated on 113 items in the beginning teacher study. Thirty-two of the beginning teacher item reliabilities ranged from +1.00 to .90, 41 items from .89 to .80, 26 items from .79 to .70, 9 items from .69 to .60 and 5 items from .59 to .50.

Of the 30 experienced teachers selected for the second mailing, 21 (70%) returned the second questionnaire. Reliability

coefficients were calculated on the 37 items to which at least 15 people responded in the experienced teacher study. Twenty-one of the experienced teacher item reliabilities ranged from +1.00 to .71, 12 items from .70 to .41 and 4 items between .40 and .11. These coefficients suggested that the responses obtained to the questionnaire which required a reflection back on the past were not as stable as items which were factual.

Data Analysis

Data analysis was performed using the StatPac statistical program (David S. Walonick, 1986) designed to run on IBM personal computers. Chi-square and analysis of variance were used to test for significant differences between groups. Throughout the analyses, a probability level of .05 was used to identify significant differences ($p \leq .05$). This means that the differences identified as significant would be expected to occur by chance only 5 times or less out of 100.

Results and Discussion

Demographic Variable Comparisons Among Groups

Demographic data were gathered to describe the samples used in this study, and to determine the extent to which the comparison groups might have been different before entering vocational education. Because the sample of experienced teachers did not include all teachers who started teaching with the experienced group (it only included those teachers who survived for at least 8 years) it is not possible to generalize results to differences between the beginning teacher group and the total group with which the experienced teachers started to teach. Difference upon entry to teaching found are confounded by attrition within the experienced during the first 8 years of teaching.

Demographic variables studied were found in the review of the literature to affect teacher turnover. The variables included age at entry to teaching, gender, education prior to entry and the vocational field in which the person initially taught. In addition, the groups were compared on their self-reported job needs at entry to teaching. Primary comparisons were between the experienced teachers who stayed and the beginning teachers who stayed, and among the experienced teachers who left and the beginning teachers who left because differences between these groups were the central focus of this study. Tables 2, 3 and 4 present the analyses of the demographic variables.

No significant differences were found among any of the groups in distributions of high school diplomas and gender. Significant differences were found between the beginning group

and experienced group that stayed upon entry to vocational education. Results are presented in Tables 2 and 3. Those groups differed on age, numbers with four year college degrees, amount of vocational education, and vocational field membership. The mean age of the beginning group at entry was 37.67 and as compared with 31.85 for the experienced group. More of the experience group (49.8%) that stayed had four year college degrees upon entering vocational education than the beginning

Table 2

Comparison of Ages of Teachers
Upon Entry to Vocational Education @

	Group Means and Std. Dev. Stayed	Left	Sig. Level *p≤.05 (df= 1,1,1,450)
Exp.	31.85 (7.27)	34.29 (7.50)	Col. .71
Beg.	37.67 (10.48)	35.86 (8.69)	Row .00* Int. .04*

@ Experienced groups: stayed n=232, left n=28
Beginning groups: stayed n=100, left n=94

group (35.3%). More of the experienced group that stayed had vocational school diplomas (48.5%) than the beginning group (38.2%). More of the beginning people who stayed were from T&I/technical (52.3%) and health occupations (26.1%) while more of the experienced people who stayed were from business and office education (39.1%).

The groups that left also differed significantly on two variables: in numbers with four year college degrees and vocational field membership. More of the experience group (76.9%) that left had four year college degrees upon entering vocational education than the beginning group (20.6%). More of the beginning people who left were from T&I/technical occupations (54.2%) while more of the experienced people who left were from business and office (32.3% and health occupations (35.5%).

Job Needs at Entry to Vocational Education

Both experienced and beginning teacher groups were asked to rate 11 job needs that may have attracted them to vocational education using a Likert-type scale of 1 to 5, with 1 being low (not very important) and 5 being high (very important). The needs of beginning and experienced teachers who stayed and the groups that left were compared using two-way ANOVA. Table 5 presents the group means and the significance levels associated

Table 3

Comparison of Gender Distribution and Education Prior to Entering Vocational Education for Groups That Stayed and Groups That Left
(percentages and significance of Chi-square)

		Stayed		Left	
Variable		Exp.	Beg.	Exp.	Beg
		n=247	n=102	n=29	n=97
Gender	Male	75.3	64.7	69.0	59.8
	Female	24.7	35.3	31.0	40.2
		sig.=.06	df=1	sig.=.50	df=1
College		n=219	n=102	n=26	n=97
Education	No College	7.8	26.5	0.0	30.9
	Some	42.5	38.2	23.1	48.5
	4 yr Degree or higher	49.7	35.3	76.9	20.6
		sig.=.00*	df=2	sig.=.00*	df=2
High School		n=201	n=102	n=23	n=97
Education	No Diploma	2.0	4.9	8.7	5.2
	H.S. Diploma	98.0	95.1	91.3	94.8
		sig.=.29	df=1	sig.=.87	df=1
Vocational		n=165	n=102	n=20	n=97
School Education	No. Voc. Ed.	34.5	52.0	45.0	45.4
	Some Voc. Ed.	17.0	9.8	20.0	12.4
	Voc. Diploma	48.5	38.2	35.0	42.3
		sig.=.02*	df=2	sig.=.63	df=2

with differences between groups. Significant differences among groups were further located using t-tests.

Upon entry to vocational education there were no differences between the groups on salary or stress. Both the experienced groups that stayed and left rated fringe benefits, work environment, working with students, sharing knowledge, work schedule, job security, and control of work significantly higher than the beginning groups that stayed and left. The experienced and beginning groups that stayed rated work environment, working with students, sharing knowledge, career advancement, and co-

Table 4

Comparison of Vocational Teaching Fields
of Teachers in Groups That Stayed and Groups That Left
(percentages and significance of Chi-square)

	Stayed		Left	
Teaching Field	Exp. n=233	Beg. n=88	Exp. n=31	Beg n=83
T&I/Technical	33.5	52.3	9.7	54.2
Business/Office	39.1	8.0	32.3	12.0
Marketing	3.4	3.4	0.0	0.0
Health Occup.	12.4	26.1	35.5	16.9
Home Ec./Service Occup.	9.9	9.1	12.9	13.3
Agriculture/Environment	1.7	1.1	9.7	3.6
	sig.=.00*	df=5	sig.=.00*	df=4

workers significantly higher than the groups that left. Three of the analyses yielded significant two-way interactions which were caused primarily by the beginning group that left having a significantly lower mean rating than any of the other groups. It is interesting to note that the beginning group that left rated 10 of the 11 needs lower than the other three groups. All four of the groups rated three needs among their highest needs upon entering vocational education: sharing knowledge, working with students, and work environment.

Demographic and Entry Needs Summary

The analyses of differences among the comparison groups on the demographic variables indicated that some of the groups were significantly different in age, amounts of education, and vocational field membership. The groups also varied on job needs which attracted them to vocational education. **These differences must be considered when examining further study findings regarding what happened to these groups later in their careers. These differences must also be viewed with the realization that the experienced teacher group included only those who survived in teaching for at least 8 years. It was not possible to examine differences between the total cohorts of beginning and all teachers who started teaching with the experienced teachers.**

Table 5

Comparison of Factors Which Attracted Experienced and Beginning Teachers to Enter Vocational Education @

Job Need		Group Means, Ranks & Std. Deviations: Stayed		Left		Sig. Level *p≤.05 (df= 1,1,1,465)	
Salary	Exp.	3.17 (1.16)	9	3.14 (1.16)	7.5	Col.	.92
	Beg.	3.09 (1.18)	8	3.09 (1.28)	4.5	Row	.67
						Int.	.90
Fringe benefits	Exp.	3.37 (1.15)	7	3.14 (1.06)	7.5	Col.	.73
	Beg.	2.27 (1.21)	11	2.40 (1.32)	9	Row	.00*
						Int.	.21
Work Environment	Exp.	3.89 (0.96)	3	3.64 (1.06)	5	Col.	.00*
	Beg.	3.82 (1.14)	3	3.13 (1.34)	3	Row	.03*
						Int.	.10
Working with students	Exp.	4.56 (0.70)	1.5	4.32 (0.82)	2	Col.	.00*
	Beg.	4.45 (0.82)	2	3.89 (1.30)	2	Row	.01*
						Int.	.13
Sharing Knowledge	Exp.	4.56 (0.67)	1.5	4.52 (0.63)	1	Col.	.02*
	Beg.	4.57 (0.78)	1	4.10 (1.29)	1	Row	.05
						Int.	.04*
Less Stress	Exp.	2.26 (1.13)	11	2.31 (1.26)	11	Col.	.51
	Beg.	2.37 (1.20)	10	2.12 (1.29)	11	Row	.80
						Int.	.30
Career Advancement	Exp.	3.09 (1.22)	10	3.03 (1.43)	10	Col.	.05*
	Beg.	3.24 (1.42)	7	2.67 (1.54)	8	Row	.52
						Int.	.11
Work Schedule	Exp.	3.45 (1.28)	6	3.64 (1.23)	5	Col.	.31
	Beg.	3.29 (1.46)	6	2.76 (1.58)	7	Row	.00*
						Int.	.03*

Job Security	Exp.	3.28 (1.25)	8	3.07 (1.36)	9	Col.	.32
	Beg.	2.42 (1.27)	9	2.30 (1.41)	10	Row	.00*
						Int.	.80
Control of Work	Exp.	3.49 (1.18)	5	3.64 (1.03)	5	Col.	.14
	Beg.	3.56 (1.29)	5	2.95 (1.51)	6	Row	.05*
						Int.	.01*
Co-workers	Exp.	3.63 (1.13)	4	3.35 (1.29)	6	Col.	.01*
	Beg.	3.65 (1.23)	4	3.09 (1.46)	4.5	Row	.55
						Int.	.64

@ Experienced groups: stayed n= 243, left n=29
Beginning groups: stayed n= 100, left n=97

Comparisons of the Beginning and Experience Groups That Stayed in Vocational Education

Differences Between Beginning Teacher Needs at Entry and Experienced Teacher Needs After 13 - 17 Years

The vocational education job needs reported by beginning teachers at entry were compared with the current job needs of experienced teachers who stayed between 13 and 17 years. This was done to examine the differences between a group of beginning teachers who were committed enough to vocational education early in their careers to stay, and a group of experienced teachers who were committed enough to stay. Table 6 presents the results of those comparisons.

At least one of the two groups felt 10 of the 11 job needs were at least moderately important to their staying in vocational education. Less stress was not considered even moderately important by either group. The experienced group and the beginning group that stayed in vocational education differed significantly on 8 of the 11 job needs. The experienced group rated salary, fringe benefits, work environment, less stress, work schedule and job security as more important than the beginning group. The beginning group rated sharing knowledge and career advancement significantly higher.

The three most important current needs of experienced teachers who stayed were working with students, fringe benefits and work environment. The three most important needs of the beginning teachers when they started teaching were sharing knowledge, working with students, and work environment.

Table 6

Comparison of Initial Job Needs of
Beginning Teachers and the Current Job Needs
of Experienced Teachers Who Stayed in Vocational Education

Job Need	Group Means & Ranks & Std. Deviations Exp. n=243		Beg. n=100		Sig. Level *p≤.05 (df=1,341)
Salary	4.21 (0.91)	4	3.09 (1.18)	8	.00*
Fringe benefits	4.26 (0.92)	2	2.27 (1.21)	11	.00*
Work Environment	4.24 (0.83)	3	3.82 (1.14)	3	.00*
Working with students	4.52 (0.80)	1	4.45 (0.82)	2	.50
Sharing Knowledge	1.74 (1.09)	11	4.57 (0.78)	1	.00*
Less Stress	2.75 (1.32)	10	2.37 (1.20)	10	.01*
Career Advancement	2.83 (1.29)	9	3.24 (1.42)	7	.01*
Work Schedule	3.90 (1.07)	5	3.29 (1.46)	6	.00*
Job Security	3.79 (1.27)	8	2.42 (1.27)	9	.00*
Control of Work	3.83 (1.13)	7	3.56 (1.29)	5	.06
Co-workers	3.88 (1.08)	6	3.65 (1.23)	4	.08

The three least important current needs of experienced teachers who stayed were sharing knowledge, less stress and career advancement. The three least important needs of beginning teachers were fringe benefits, less stress and job security.

Professional Development Activities

Information on the professional development activities of the experienced and beginning teachers were compared along with the perceived value of a college degree. It was hypothesized that the professional development activities of teachers would change depending upon their stage of career development.

Perceived Value of a College Degree: The groups that stayed were asked to express the extent to which having a degree in vocational education was an advantage. Results are presented in Table 7. The majority of both groups saw a degree as increasing their opportunity to advance and to improve salary. Significant differences between the experienced and beginning teacher groups were found for only two advantages presented, acceptance by other staff and teaching competence. In both cases the beginning groups saw these to be more of an advantage.

Table 7

Percentages of the Experienced and Beginning Teachers Who Viewed a College of Degree As Providing Various Advantages

Advantage	Percentages & Ranks Exp. n=239		Beg. n=95		Sig. Level *p≤.05 (df=1)
Salary	50.2	2	55.8	2	.42
Fringe Benefits	13.5	8	21.1	8	.12
Type of work I can do	33.3	3	42.1	5	.17
Career advancement	75.8	1	68.4	1	.22
Job Security	31.1	5	41.1	6	.11
Type of co-workers	14.8	7	23.2	7	.10
Acceptance by staff	19.7	6	38.9	3	.00*
Teaching competence	31.8	4	45.3	4	.03*

Participation in College Credit Course: The experienced and beginning teachers who stayed in vocational education were asked to indicate the type and number of professional development college course they took during their last five years of employment. Table 8 presents the results. There was a significant difference in the number of instructional methodology courses taken by the two groups. Whereas 82% of the beginning

teachers took one or more methodology courses during the last five years, only 62% of the experienced teachers did.

Table 8

Percentages of the Experienced and Beginning Teachers Who Participated in Various Types of College Credit Courses

Type of Course	Exp. n=249	Beg. n=102	Sig. Level *p≤.05 (df=1)
Instructional methods	62.2	82.4	.00*
Technical updating	65.1	69.6	.49
Other education courses	53.0	54.9	.84

More than 65% of both groups took one or more technical updating courses and about 54% took one or more other credit courses in education.

Courses Applied to a Degree and Type of Degree Sought: There was no significant difference among the numbers of experienced and beginning teachers who applied their courses toward a degree. Table 9 presents the results. Twenty-five percent of each group reported applying course credits towards a degree. However,

Table 9

Percentages of the Experienced and Beginning Teachers Who Worked Toward Degrees

Question		Exp.	Beg.	Sig. Level *p≤.05 (df=1)
		n=236	n=98	
Were credit course applied to a degree?	Yes	25.0	25.5	.97
	No	75.0	74.5	
Degree sought?		n=55	n=25	
Associate/Bachelors		41.8	72.0	.02*
Graduate degree		58.2	28.0	

there was a significant difference in the types of degrees toward which these groups applied the courses. Fifty-eight percent of the experienced group applied the courses toward a graduate degree while 72% of the beginning group applied them toward an associate or bachelor's degree. Again, one must keep in mind that none of the beginning group entered teaching with a degree

in education while a number of the experienced group had education degrees upon entry. Also, some of the experienced teachers may have completed associate or bachelor's degrees between the time they entered teaching and when this study was conducted. Therefore, one might expect more of the experienced teachers to be working toward graduate degrees.

Non-Credit Workshop Participation and Source: The numbers of the experienced and beginning teachers who stayed were compared on the number of non-credit workshops in which they participated. The source of those workshops was also investigated. The results are presented in Table 10. More of the experienced teachers participated in each type of workshop than the beginning teachers, and significantly more participated in business/ industry, state/government, and school district workshops. Both groups participated in more workshops by business/industry than any other type of workshop. The next largest number of workshops for both groups was from school districts. More than 40% of both

Table 10

Percentages of the Experienced and Beginning Teachers Who Participated in Non-Credit Workshops Sponsored by Various Sources

Workshop Sponsor	Exp. n=249	Beg. n=102	Sig. Level *p≤.05 (df=1)
Business/Industry	80.3	61.8	.00*
State/Government	51.0	27.5	.00*
School district	75.5	52.0	.00*
Private consultants	36.5	33.3	.65
College or University	47.0	40.2	.30

groups participated in non-credit workshops offered by colleges or universities.

Summary

The majority of both the experienced teachers and the beginning teachers who stayed in vocational education saw a degree as increasing their opportunity to advance and to improve salary. The beginning group felt that having a degree also was significantly more important in increasing acceptance by other staff and increasing teaching competence.

The majority of both groups of teachers took credit courses in instructional methodology, technical updating and other education courses. The experienced and beginning teachers differed significantly in the amount of instructional methodology courses taken. This could be expected because the beginning teachers were required to take such courses to obtain 5-year teaching licenses, while experienced teachers would have had to work toward licensure renewal which allows more options beyond college credit courses.

About 25% of both groups were working toward degrees. The majority of the experienced group was applying the courses toward graduate degrees, while the majority of the beginning group was applying them toward associate and bachelor's degrees.

The experienced teacher group took part in more non-credit workshops of all types. They took part in significantly more business/industry, State/government and school district workshops than the beginning teachers. The largest number of non-credit workshops taken by both groups was from business/industry.

Comparison of Reasons Why Beginning and Experienced Teachers Left Vocational Education

Respondents who left vocational education were asked to rate reasons they left using a Likert-type scale of 1 to 5, with 1 being not very important and 5 being very important. Results are presented in Table 11. Only one of 13 possible reasons for leaving vocational education received an average group rating above 3, indicating it was at least moderately important. The experienced group rated "wanted a change" above 3. However, there were significant differences between the ratings of experienced and beginning teacher groups on six of the possible reasons for leaving vocational education: work environment, students, less stress, type of co-workers, maintain competence, and wanted a job change. In each case the experienced group that left rated them as more important than the beginning group that left.

An examination of the standard deviations associated with the group ratings indicated that they were quite large as compared with the ratings of needs upon entry to vocational education and after teachers had years of experience. This suggests that the members of the groups varied greatly in how important a given reason was for leaving. Some members rated some reasons high, and others rated the same reasons low. There seems to have been little agreement within the groups.

The three most important reasons for experienced teachers leaving were wanted a change, type of co-workers and less stress.

Table 11

Differences in Why Experienced and Beginning Teachers Leave Vocational Education

Reasons	Means, Ranks, & Std. Deviations Exp. n=22		Beg. n=92		Sig. Level *p≤.05 (df=1, 112)
Salary	2.73 (1.61)	7	2.73 (1.59)	1	.23
Fringe benefits	2.05 (1.33)	11	2.00 (1.28)	7	.89
Work environment	2.75 (1.65)	5	2.01 (1.39)	6	.03*
Students	2.18 (1.33)	10	1.65 (1.11)	13	.05*
Less stress	2.83 (1.61)	3	1.99 (1.13)	8	.02*
Career advancement	2.82 (1.79)	4	2.67 (1.71)	2	.73
Work schedule	2.73 (1.66)	7	2.34 (1.61)	4	.68
Type of co-workers	2.96 (1.70)	2	2.08 (1.35)	5	.01*
Position eliminated	2.48 (1.93)	9	2.47 (1.83)	3	.99
Dislike Voc. Ed.	1.59 (1.10)	13	1.70 (1.32)	12	.73
Maintain competence	2.73 (1.88)	7	1.84 (1.35)	10	.01*
Wanted a change	3.18 (1.65)	1	1.85 (1.41)	9	.00*
Family reasons	1.62 (1.32)	12	1.76 (1.37)	11	.67

The three most important reasons for beginning teachers leaving were salary, career advancement and position eliminated.

The three least important reasons for experienced teachers leaving were dislike of vocational education, family reasons, and fringe benefits. The three least important reasons for beginning teachers leaving were students, dislike of vocational education and family reasons.

Even though there was a significant difference between the two groups on students, it appears that students or a dislike for vocational education are not among the most important reasons for leaving.

Summary, Conclusions and Implications

This study was designed to investigate differences in the needs and professional development activities of beginning teachers who remained in teaching after five years, and experienced teachers who remained in teaching for an extended period of time (13 to 17 years). It was also designed to determine if the needs beginning teachers who left vocational education and experienced teachers who left differed.

This study was limited by a number of constraints. The methodology section of this report discusses them in detail. First, the beginning teachers only included teachers without degrees in education, while some of the experienced group had degrees in education when they started teaching. This very likely affected the types of degrees the two groups were seeking later in their careers. Second, this was a cross-sectional vs a longitudinal study. This meant that beginning and experienced teacher groups may have been affected by different employment opportunities and conditions during their careers. It also required people to reflect back upon the past to indicate what they were thinking. These reflections may or may not have been accurate. These limitations should be considered when reviewing the conclusions.

Similarities Between Groups Upon Entering Teaching

The experienced group that stayed and the beginning group that stayed, and the experienced group that left and the beginning group that left, were found to be different on a number of demographic variables when they entered teaching. It was not possible to determine whether those differences reflected actual differences in the cohorts of beginning and experienced teachers who entered teaching, or whether it was due to one group being assessed at entry, and the other group containing people who survived in teaching for at least eights years. The experienced group of teachers that stayed entered teaching at a younger age than the beginning group that stayed. The experienced groups that stayed and left had significantly more college education than the beginning groups. The experienced group that stayed

also had significantly more vocational school education than the beginning group.

The job needs which attracted teacher groups to vocational education varied significantly in importance both between the groups that stayed, and the groups that left. All four groups rated working with students and sharing knowledge as their most important needs upon entry to teaching. They also rated these needs as very important. All groups also indicated that "less stress" was not an important reason for them entering teaching. The experienced teacher group that stayed in teaching rated salary, fringe benefits, work environment, working with students, and job security as more important than any of the other groups. The experienced group that stayed appeared to be more concerned than the other groups with needs that pertained to the extrinsic aspects of teaching that would improve their economic security and their job environments. The beginning group that stayed rated sharing knowledge, career advancement, and co-workers as more important than any of the other groups. The beginning group that stayed appeared to be more concerned than the other groups with sharing their knowledge and career advancement, in addition to the people and conditions surrounding their work.

The experienced group that left rated work schedule and control of work as more important than any of the other groups. The beginning group that left rated nine of the 11 job needs lower than any of the other groups: fringe benefits, work environment, working with students, sharing knowledge, less stress, career advancement, work schedule, job security, control of work, and co-workers. This suggests that the beginning group that left did not share the needs upon entering vocational education that were important to those who continued as a teacher. Therefore, they left teaching relatively soon. The fact that the beginning teachers who left seemed to systematically rate many of the needs lower than any of the other groups who persisted in teaching suggests that it may be possible to develop a procedure for advising potential teachers about their possible success in teaching based on similarity of their needs to those of successful teachers.

The analyses of differences among the comparison groups on the demographic variables job entry needs indicated that the groups were not the same. **These differences must be considered when examining differences in what happened to them later in their careers which are presented below.**

Changes in Job Needs With Experience in Teaching

The job needs reported by beginning teachers at entry who stayed in teaching were compared with the job needs of experienced teachers who stayed between 13 and 17 years. This was done to examine the differences between a group of beginning

teachers who were committed enough to vocational education early in their careers to stay, and a group of experienced teachers who were committed enough to stay. At least one of the two groups felt 10 of the 11 job needs were at least moderately important to their staying in vocational education. This is indicated by at least a rating of 3 on a five point scale. This suggests that the needs included in the questionnaires were relevant to vocational teachers. Less stress was not considered even moderately important by either group. The experienced group and the beginning group that stayed in vocational education differed significantly on 8 of the 11 job needs. The experienced group rated salary, fringe benefits, work environment, less stress, work schedule and job security as more important than the beginning group. The beginning group rated sharing knowledge and career advancement significantly higher.

The most dramatic difference between the groups was in their ratings of sharing knowledge. The experienced teachers rated it 1.74 while the beginning teachers rated it 4.57. This is especially interesting when one realizes that the experienced teachers rated it as one of the most important needs they had upon entering teaching. These results support those of the second study of the series which analyzed differences in the needs of experienced teachers at entry and after 13-17 years of experience.

The findings of both studies indicate that the relative needs of teachers do shift from the time they enter teaching. The shifts also seem to support what career development theory would suggest to be typical characteristics associated with maturity in a career. The beginning teachers seemed more concerned with establishing themselves in their careers, less concerned with security, and were more enthusiastic about sharing knowledge. The experienced teachers seemed to have lost their concern for sharing knowledge, even though they were still interested in working with students, and were more concerned about the extrinsic aspects of their current employment. They were more concerned with job security, work environment, and salary and less concerned about career advancement.

Changes in Professional Development Activities

Information on the professional development activities of the experienced and beginning teachers were compared along with the perceived value of a college degree. It was hypothesized that the professional development activities of teachers would change depending upon their stage of career development. Both groups of teachers participated in substantial amounts of professional development experiences. However, there was a shift in the types of professional development activities of the teachers, as hypothesized. The majority of both groups took part in college credit courses. However, more of the beginning group

took courses in instructional methodology. This could be expected because the beginning teachers were required to take such courses to obtain 5-year teaching licenses, while experienced teachers would have had more options to meet licensure requirements beyond college credit courses. The majority of both groups felt that having a degree in vocational education facilitated career advancement and salary. However, significantly more of the beginning teachers viewed a degree as also helping them increase their teaching competence and improving their acceptance among other staff. As expected, more of the experienced teachers were applying college credit courses to graduate degrees. Experienced teachers took significantly more non-credit workshops.

Changes in Reasons for Leaving Vocational Education

Only one of the 13 possible reasons presented for leaving vocational education received an average group rating above 3, indicating it was at least moderately important. The experienced group rated "wanted a change" above 3. An examination of the standard deviations associated with the group ratings indicated that they were quite large as compared with the ratings of needs upon entry to vocational education and after teachers had years of experience. This suggests that the members of the groups varied greatly in how important a given reason was for leaving. Some members of a group rated some reasons high, and others rated the same reasons low.

However, there were significant differences between the ratings of experienced and beginning teacher groups on six of the possible reasons for leaving vocational education: work environment, students, less stress, type of co-workers, maintain competence, and wanted a job change. In each case the experienced group that left rated them as more important than the beginning group that left. It appears that the reasons people leave vocational education are not related to the students, dislike for vocational education or family reasons. Experienced teachers seem to be leaving for reasons related to dissatisfaction (change, co-workers, stress), while beginning teachers appear to be leaving for reasons related to promoting their careers (salary, career advancement).

Conclusions

The findings of this study support the theoretical predictions of both the Theory of Work Adjustment (Dawis, Lofquist and Weiss,1968) and McKenna's (1982) model of teacher career development. Both models suggest that factors affecting job satisfaction impact a person's reflections on teaching as a profession and on continuing in that profession. They also suggest that factors affecting satisfaction change as teachers mature in the profession. If the factors affecting individual

satisfaction are perceived to remain compatible with the teaching profession, a person would be expected to remain in the profession. If those factors are not perceived to remain compatible, a person would be expected to leave.

The job needs of beginning and experienced teachers who stayed in teaching were found to be significantly different. Those differences appeared to be related to the career development stage of the teachers. Beginning teachers were more enthusiastic about sharing their knowledge and career advancement, while established teachers were more concerned about their work environments and job security. Teachers who left teaching the earliest (beginning group that left) rated 10 of the 11 needs they had upon entering teaching lower than the other groups of teachers. This suggests that this group that left the earliest may have left because their needs were less compatible with the field of teaching than the needs of the other groups.

The professional development activities of the teachers also shifted somewhat from the time they entered teaching. Beginning teachers took more courses in instructional methodology while more experienced teachers took part in none credit workshops. Both groups of teachers saw advantages in degrees, but more beginning teachers were working toward associate or bachelor's degrees while more experienced teachers were working on graduate degrees.

Implications

This study has a number of implications for improving the retention and professional development of technical college teachers.

- The fact that the beginning teachers who left rated the needs they had upon entry to teaching systematically different from other teachers who continued in teaching suggests that it may be possible to develop an instrument to obtain data useful in advising future potential teachers about their likelihood of success in the field. Improving the initial procedures for recruiting teachers could reduce attrition.

- The fact that teacher needs and professional development activities changed over time could give direction to colleges in trying to design activities which could better meet the needs of the various teacher groups.

- The fact that teacher needs tended to move toward the extrinsic aspects of work as teachers became more experienced suggests that the technical colleges might consider adopting quality of worklife programs with the

participation of the teachers. This could improve teacher satisfaction and reduce attrition.

- The fact that experienced teachers seem to be leaving teaching due to dissatisfaction with the work environment again suggests the need for quality of worklife programs in the technical colleges.

- The fact that beginning teachers seem to be leaving to improve their career opportunities suggests that the technical colleges might consider adopting a personnel system that allows teachers to have opportunities for upward mobility within the system.

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